

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001678**Date Inspected:** 09-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Huang Wen-Pang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC Welder Ren Jinzhu ID Number 044837 utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-P-2211-B-U2 in the 1G (Flat Groove) position to weld various the 2 halves of a flange for Floor Beam Diaphragm FB005-06. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 167 amps, 24.3 volts with a travel speed of 92 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC NDT Technician Zhou Dongyun, utilizing the MT Method, to examine the WJ's FB008-01-025, 041, 043 and 045 on Floor Beam Web FB008-01. There appeared to be no indications and Mr. Zhou accepted the welds on FB008-01.

The QA Inspector randomly observed ZPMC NDT Technician Zhou Dongyun, utilizing the MT Method, to examine WJ's FB008-04-025, 039, 043 and 045 on Floor Beam Web FB008-04. There appeared to be no indications and Mr. Zhou accepted the welds on FB008-04.

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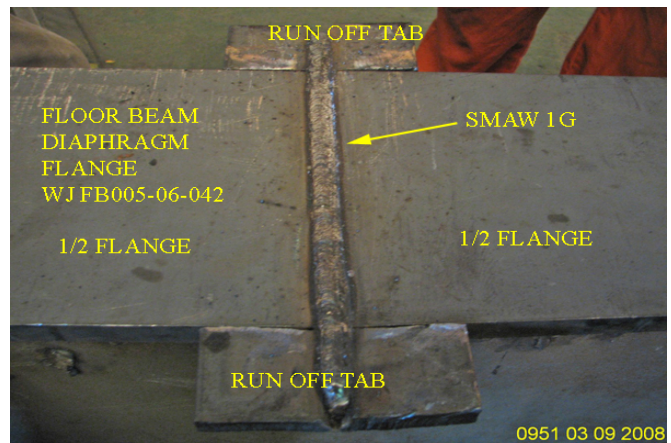
The QA Inspector performed a 10% random Visual Testing (VT) inspection and random 10% MT inspection on cover pass of all welds attaching T-Stiffeners and flanges to the far side of Floor Beam Web FB008-01. The QA Inspector randomly observed an area of WJ FB008-01-011 to be undersized with overlap and improper blending that left the undersized area with a sharp edge at the overlap. The weld in that area had one leg which was only 4 mm for a length of 50 mm. The QA Inspector randomly observed ZPMC Welding Personnel prepare the area with a grinder, added weld metal and then blend the added weld metal into the existing adjacent weld. There appeared to be no indications after the rework. The attached photograph provides additional detail.

The QA Inspector performed a 10% random Visual Testing (VT) inspection and random 10% MT inspection on cover pass of all welds attaching T-Stiffeners and flanges to the far side of Floor Beam Web FB008-04. There appeared to be no indications.

The QA Inspector performed a 10% random Visual Testing (VT) inspection and random 10% MT inspection on cover pass of all welds attaching T-Stiffeners and flanges to the far side of Floor Beam Web FB015-01. There appeared to be no indications.

Bay 8 OBG:

The QA Inspector randomly observed ZPMC Personnel performing heat straightening operations on Tower Diaphragm Sub-Assembly 28M Top SA248(S) per HSR1(T)-054.



Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

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Reviewed By: Hager,Craig

QA Reviewer